

CivCity EXTRA!

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We hope you enjoy the second issue of CivCity EXTRA! This newsletter is about Ann Arbor and Washtenaw County. You'll get helpful information about your community. You'll learn about local events and news. You'll find out about local elections – and much more. Thanks for reading!

Mary Morgan

Mary Morgan,
CivCity Executive Director



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The Flint Water Crisis: What Happened?

In the 1950s and 1960s, Flint, Michigan was a strong city. Starting in the late 1960s, people, jobs, and money left the city. By the early 2000s, Flint was in debt, and it was spending more money than it was bringing in.

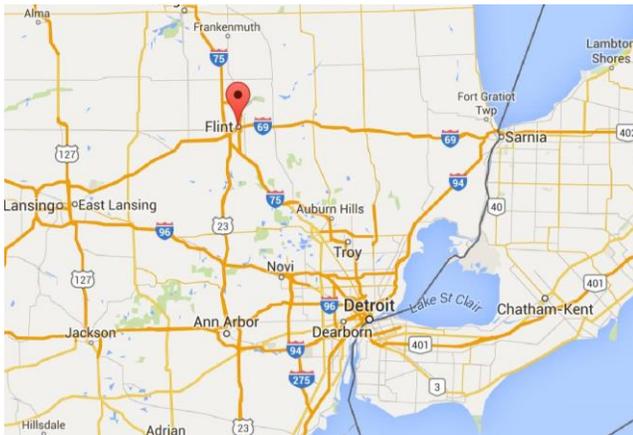


Figure 1: Flint, Michigan, is about one hour north of Ann Arbor by car. Map ©2016 Google

In December 2011, Governor Rick Snyder said the city needed an emergency manager. The manager's job was to fix the city's money problems. He was also supposed to make sure people in the city got basic services. Flint was run by emergency managers until April 2015.

The emergency managers found ways to save money. Buying water from the City of Detroit cost a lot of money. It would be cheaper to get water some other way.

In March 2013, Flint's City Council agreed. In April 2013, the state treasurer said the plan was good. The state treasurer was the emergency manager's boss. So the emergency manager told Detroit about the plan. Detroit was upset. It said it would stop selling water to Flint in April 2014.

Flint would not be able to get water from its other source until the spring of 2017. Until then, Flint would use water from the Flint River. Water from the Flint River needed to be treated. To treat the water, Flint improved its water plant. The improvements cost millions of dollars. In April 2014, Flint started using water from the Flint River.

Problems with the Water

People began to use the water, but they did not like it. They said it looked bad, smelled bad, and tasted bad. A few months later, the city found bacteria in the water. They told people to boil the water before using it. They also added chemicals to the water to kill the bacteria.

But there were other problems, too. In October 2014, General Motors (GM) stopped using the water. It said that the water was making its



Figure 2: Dirty water flows from a faucet. Image courtesy of "TruthSec Anons" via YouTube. CC-BY license.

engine blocks rust. Three months later, Flint said that the water was not safe to drink. It had too many chemicals in it.



Figure 3: Grandparents protest Flint's water problems in screenshot from "Flint Michigan's Worldwide Water Alert." Image courtesy of Spectacle TV via YouTube. CC-BY license.

People in Flint got even more upset and angry. Some people wanted to stop using water from the river. Detroit offered to sell water to Flint again, but the emergency manager turned down the offer. Instead, he hired a company to fix the water. The company, the city, and the state said the water was safe.

Lead in the Water

In early 2015, Flint found lead in the water. It is dangerous to drink water with lead in it. It is not good for anyone,

but it can really hurt children and pregnant women. For the next seven months, the lead problem was in the news. Scientists, doctors, and government workers tried to figure out how much lead was in the water. They tested people to see if they had been poisoned by lead.

In October 2015, the city told people to stop using the water. The governor asked a task force to find out what had happened. Flint started to use Detroit water again. In January 2016, the state declared a state of emergency for Genesee County. Flint is in Genesee County.

The Problem Is Not Fixed

In March 2016, the U.S. Congress got involved. It tried to make people explain what happened. Some people blamed the U.S. Environmental Protection Agency (EPA). They said it had not done its job. The EPA said it was not to blame. It said that it did not have enough power to fix the problem.

Other people blamed Governor Rick Snyder. They said he had made many mistakes. The governor blamed the EPA.

Back in Michigan, the governor's task force mostly blamed the state. It said that emergency managers might be a bad idea.



Figure 4: A committee of the U.S. Congress hears from the people. Public domain stock photo.

People who live in Flint still do not have good water. People across the state and the country are still arguing about who to blame. They do not agree about how to solve the problem. How do you think the problem should be fixed?

Words to Know

Key People

The **governor** is in charge of the state government. He or she is elected by the people.

The governor hires the **treasurer**. The treasurer's job is to take care of the state's money. The state treasurer is not elected by the people. The state treasurer is the emergency manager's boss.

The governor also hires **emergency managers**. He sends them to cities with money problems. They are supposed to fix the problems. They are supposed to make sure people in the city get basic services. They can tell the city what to do, but they are not elected by the people.

Bacteria and Lead in Flint's Water

Flint's water had **bacteria** in it. Bacteria are tiny life forms. We cannot see them with our eyes alone. Some bacteria can make people sick. Boiling water kills bacteria and makes it safe to use.

Flint also used **chemicals** to kill bacteria in the water. Chemicals are the basic building blocks of the world around us. Everything is made out of them. There are many kinds. They can be used in many ways.

The chemicals killed the bacteria. But they also pulled lead out of the pipes and into the water. Another chemical could have stopped the lead from coming out of the pipes. Flint did not use this other chemical.

Lead is a **mineral** (like rocks). It is not alive, so heat cannot kill it. Boiling the water does not help. To take lead out of water, people need to use filters with tiny holes. People in Flint are using filters to clean their water.

The Fight for Clean Water in Ann Arbor

In Flint, people are fighting to get clean water. Many people cannot use the water coming into their homes. In Scio Township and Ann Arbor, people are worried about keeping their water clean. Dirty water is spreading under the ground.

In Scio Township, the dirty water has gotten into some people's wells. These people have had to find a new way to get water. In Ann Arbor, the water coming into people's houses is clean and safe. But the dirty water in the ground may cause problems in the future.



Figure 5: Scio Township lies to the west of Ann Arbor. The red pin marked "Pall Corporation" is the site of the leak. Pall Corporation bought Gelman Sciences in 1997. It closed the site in 2013. Danaher Corporation bought Pall in 2015. Map data @2016 Google.

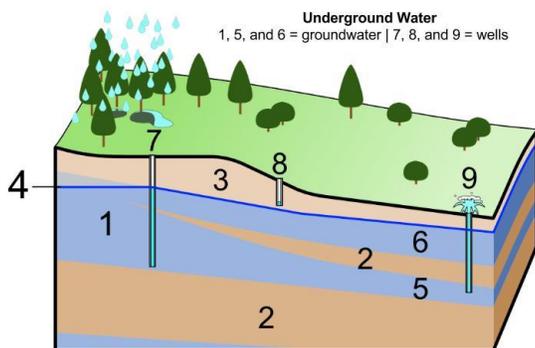


Figure 6: Water under the ground, with well. Image courtesy of Shigeru23 via Wikimedia Commons at <http://bit.ly/1ScSixp>. CC BY-SA 3.0 license. Adapted with modifications.

How the Problem Started

The story begins in the late 1950s. Charles Gelman started a company. The Gelman Instrument Company made filters with tiny holes. They were used to clean air and water and to do other things, too. The company did well. It moved to Scio Township from Chelsea, Michigan. After a while, it changed its name to Gelman Sciences.

But there was a problem. The company used a solvent to make its filters. The solvent was 1,4-dioxane. 1,4-dioxane can cause health problems. The Environmental Protection Agency (EPA) says that it might cause cancer in humans.

What Is a Solvent?

A **solvent** is a substance used to break down some other substance. Mixing sugar into water makes the sugar break down. It dissolves into the water. Water is a solvent for sugar. WD-40 is also a common solvent.

Gelman Sciences let 1,4-dioxane leak into the ground. The 1,4-dioxane made the water in the ground dirty. The dirty groundwater started to spread. It followed many paths. Sometimes it was deep. Sometimes it was close to the surface. Slowly, it moved away from Gelman Sciences. The dirty water is still spreading under Scio Township and Ann Arbor. The pattern it is making is called a plume.

What Is the Environmental Protection Agency?

The Environmental Protection Agency is also known as the EPA. The EPA is part of the U.S. government. Its main office is in Washington, D.C.

The EPA has two main jobs. It is supposed to make sure that we take care of our environment. The environment is the natural world around us. It is our air. It is our lakes, rivers, and streams. It is the ground beneath us.



Sometimes a problem in the environment can hurt people. If so, the EPA is supposed to make sure that people fix the problem. It is also supposed to make sure that people know about the problem. If people know about a problem, they can do more to fix it. They can also try to stop the problem from hurting them.

What Is a Plume?

A plume is a big, soft feather. Things that spread out like feathers are called plumes.



Figure 7: A plume (feather). Photo credit: Joao Estevao Andrade de Freitas. Public domain.



Figure 8: A plume of black smoke. Photo credit: Petty Officer 2nd Class Justin Stumberg. Public domain

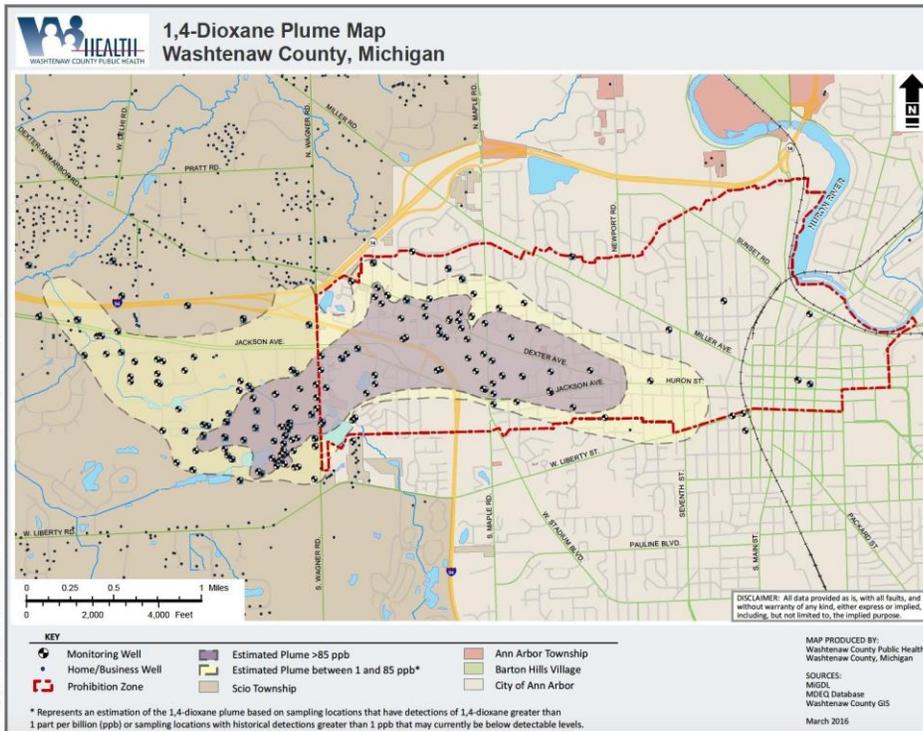


Figure 8: The 1,4-dioxane plume in Washtenaw County, Michigan | March 2016. Map produced by the Washtenaw County Public Health Department.

As the plume spreads, dirty water has gotten into people’s wells. Some people in Scio Township can no longer use their wells to get water. The plume is moving east toward downtown Ann Arbor. It is also moving north toward Barton Pond. No one knows if it will reach Barton Pond. Ann Arbor gets most of its water from Barton Pond.

How People Found the Problem

People did not know about the problem for a long time.

In 1969, the state said that Gelman Sciences was making the water dirty. So the company changed how it got rid of its 1,4-dioxane. A year and a half later, the state said that the problem was fixed. But it was wrong. The problem had not been fixed.

Years later, in 1984, a man named Daniel Bicknell found 1,4-dioxane in a lake. The lake was close to the Gelman Sciences site.

Bicknell asked the Washtenaw County Board of Commissioners to look for 1,4-dioxane in Scio Township’s water. He wanted the county to test the water in people’s wells. He thought the water was bad. Other people also wanted to know if their water was clean. They did not want to drink or use unsafe water.

Bicknell was right. The county found 1,4-dioxane in the water. In February 1986, it said that the water coming out of the ground was not safe.

Fighting to Fix the Problem

A long fight had begun. People started to ask questions. How could they get clean water? Who would pay for it? How and where was the plume spreading? What was the best way to stop it? Who would clean up the dirty water? Who would pay for the clean-up?

People did not agree about who should fix the problem or how to fix it. Gelman Sciences thought the state was to blame. The state blamed Gelman Sciences. People who owned homes in Scio Township

blamed Gelman Sciences, too. They were also angry at the government. They thought it had not done its job. It had not kept the water safe.

Years passed. Lawsuits were filed. The plume kept spreading. Finally, in 1992, Gelman Sciences agreed to clean up the plume. The state's job was to set the rules and make sure the company did its job. But the fight to fix the problem was not over.

How Clean Should the Water Be?

A big question remained. When the dirty water was cleaned, how clean did it have to get before people could use it? It was the state's job to say how much 1,4-dioxane was safe. But the people in Scio Township and Ann Arbor did not agree with what the state said. Gelman Sciences did not like what the state said either.

Levels of 1,4-dioxane are measured in "parts per billion" (ppb). Some people did not want more than 3 ppb of 1,4-dioxane in their water. (Think of 3 grains of black rice mixed with 1,000,000,000 grains of white rice. This is 3 ppb of black rice.)

The people did not want to get cancer or have other health problems. But the state kept changing its standard for "safe water." In 1995, it said that 77 ppb was safe. In 2000, it said that 85 ppb was safe. Gelman Sciences—owned at this point by Pall Corporation—thought that 85 ppb was too low. The company said it could not make the water that clean. But in 2010, the EPA made a statement. The EPA agreed with the people. It said that water with more than 3.5 ppb of 1,4-dioxane is dangerous.

In 2013, the state passed a new law. The law said that the state had to set a new 1,4-dioxane standard. The standard needed to be based on science. The state took a long time to act on the new law. Finally, in March 2016, it said that its new 1,4-dioxane standard was 7.2 ppb.

The Clean-up Continues

The people and the state can use the new standard to push for cleaner water. People with more than 7.2 ppb of 1,4-dioxane in their water will be able to get help from the state. The state has told Gelman Sciences—now owned by Danaher Corporation—about the new standard. It wants the company to make the water cleaner.

But the new standard is just one small step in a long process. Many things need to be done to clean the water. It will not be easy.

For more than 30 years, people in Scio Township and Ann Arbor have fought for clean water. They learned about the problem. They found facts and made maps. They watched what the company and the state were doing. They watched what the township, city, and county were doing. If they didn't like what they saw, they said something. They went to meetings and wrote letters. They asked questions and made sure they got answers. They talked about the plume and the clean-up. They made sure that no one forgot about the plume.

Today, the plume is still spreading. The fight for clean water has not ended. On April 18, 2016, people attended a town hall meeting about the plume. They met at Eberwhite Elementary School in Ann Arbor. They talked about the new standards and the cleanup plan. It will cost money to find out where the plume is going and to clean the water. Many people in Scio Township and Ann Arbor plan to keep fighting.

How Much 1,4-Dioxane Can Be in “Clean” Groundwater? A Timeline	
1984	Dan Bicknell finds 1,4-dioxane in Third Sister Lake. The state defines “clean water” as having no more than 3 ppb of 1,4-dioxane.
1995	The state changes the law. It raises its 1,4-dioxane standard to 77 ppb.
2000	The state raises its 1,4-dioxane standard to 85 ppb.
2010	The EPA says that water with more than 3.5 ppb of 1,4-dioxane is dangerous. Drinking it can increase a person’s chance of getting cancer.
2013	The state changes the law. It requires itself to lower its 1,4-dioxane standard.
2016	In March, the state finally lowers the state’s standard to 7.2 ppb.
1 ppb = 1 unit of 1,4-dioxane for every 1,000,000,000 units of water. (ppb = parts per billion)	

Who Is Working on the Problem?

[Scio Residents for Safe Water](#) (SRSW)

[Coalition for Action on Remediation of Dioxane](#)

(CARD)

The State of Michigan

- [Department of Environmental Quality](#)
- [Attorney General's Office](#)

Elected state officials (representatives and senators)

- [Rep. Jeff Irwin](#) (D-Ann Arbor)
- [Rep. David Rutledge](#) (D-Ypsilanti)
- [Rep. Adam Zemke](#) (D-Ann Arbor)
- [Sen. Rebekah Warren](#) (D-Ann Arbor)

[Pall Corporation](#) (formerly Gelman Sciences, now owned by Danaher Corporation)

[Washtenaw County Circuit Court](#)

Sources

We used many sources to write this story. They include:

- 1,4-Dioxane Wiki, a project of the Coalition for Action on Remediation of Dioxane (CARD)
- The Ann
- The Ann Arbor Chronicle
- MLive Ann Arbor
- News releases from the Michigan House Democrats
- News releases and fact sheets from Washtenaw County
- Old News, a project of the Ann Arbor District Library
- SRSW - Scio Residents for Safe Water website
- U.S. EPA website

How Can You Help?

Roger Rayle is a founder and leader of Scio Residents for Safe Water. He got involved with the 1,4-dioxane issue in the 1990s. We asked him what people can do to help.

Here are some ideas to help you get started.

Pay attention. Watch and listen for news about the issue.

Dig. Don't stop when you find something. Search for related news. Look to see how things are connected.

Contact. Reach out to the people who know the most about the issue. Ask them what help they need.

Give time. Groups that want to solve problems need people. Volunteers give their time and skills to help solve problems. They do so for free. Almost all groups need someone to manage its volunteers. This person is called a volunteer coordinator. The volunteer coordinator finds people to work on the problem and keeps in contact with them. When something needs to get done, he or she makes sure people do it.

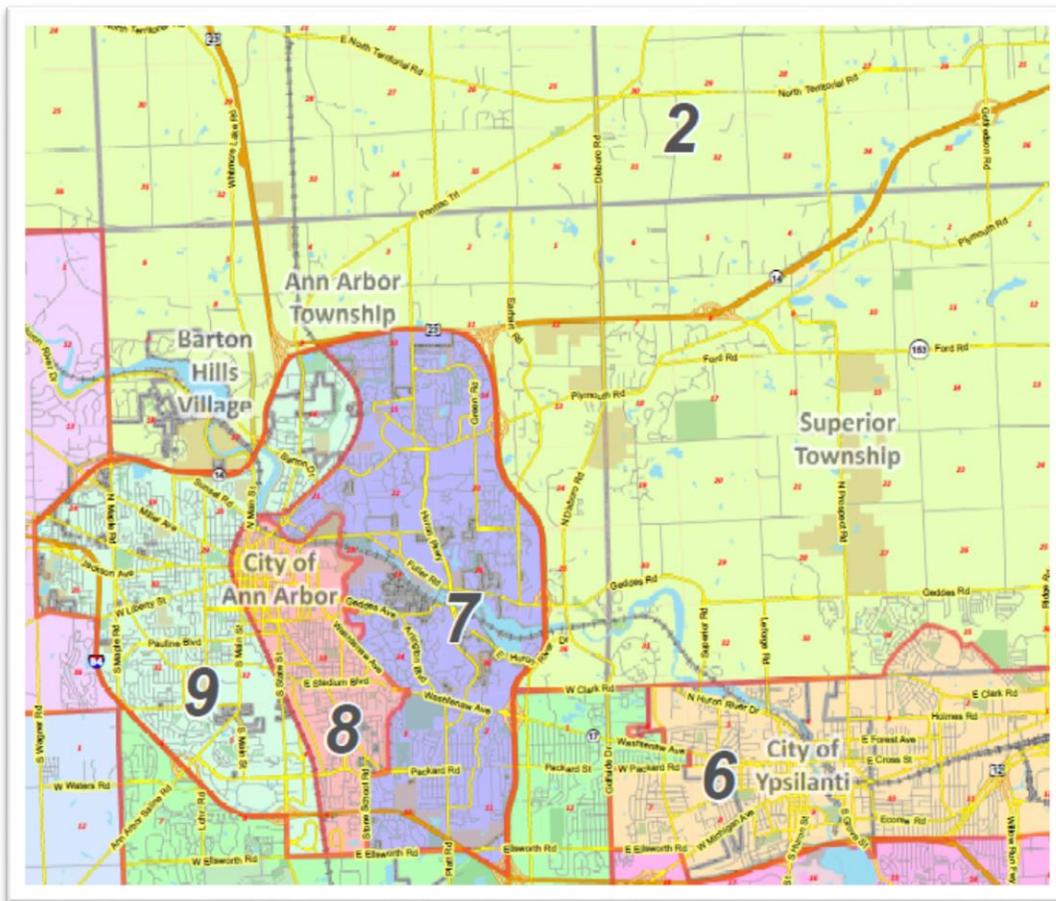
Learn About Your County Commissioners

Do you want a say in how your taxes are used? Do you need help from the county? If so, what can you do? One thing you can do is contact your county commissioner.

What Is a County Commissioner?

A county commissioner is a person who helps run the county government. Washtenaw County has nine commissioners. Voters select these commissioners. Ann Arbor has four commissioners.

The east side of Ann Arbor is District 7. Andy LaBarre is the commissioner of District 7. District 8 is in the middle of the city. It is represented by Yousef Rabhi. The west side of the city is District 9. Its commissioner is Conan Smith. A very small part of northern Ann Arbor is in District 2. Dan Smith represents District 2.



Go to: <http://www.ewashtenaw.org/government/boc/commissioner-district-map-pdf> for full map.

What Does the County Government Do?

The county government:

1. Helps poor people get health care.
2. Builds and fixes roads.
3. Fights crime and enforces the law.
4. Pays for parks and green spaces.

For more information on county government, visit: <http://www.ewashtenaw.org/government>

How Can I Contact Commissioners?

You can mail or call the Washtenaw County Board of Commissioners at:

220 North Main Street
P.O. Box 8645
Ann Arbor, MI 49107-8645

Phone: (734) 222-6850
Fax: (734) 222-6715

Or you can e-mail your commissioner directly. Here are the commissioners representing parts of Ann Arbor:



Andy LaBarre
(District 7/East)
labarrea@ewashtenaw.org



Yousef Rabhi
(District 8/Central)
rabhiy@ewashtenaw.org



Conan Smith
(District 9/West)
smithco@ewashtenaw.org



Dan Smith
(District 2/North)
smithd@ewashtenaw.org

May 3 Election: Special Education Millage

There will be a millage on the ballot of the May 3rd election. It would add 1.5 mills to the current 3.87-mill tax. This would go on until 2025. The millage would raise \$22 million for the Washtenaw County public schools. The money would be used for special education to help students with special needs. Voters will decide to approve or reject this tax proposal.

Special education programs cost Washtenaw County \$121 million each year. State and national government pays for \$40 million. The current 3.87-mill tax covers another \$57 million. Local schools must fund the last \$24 million each year.

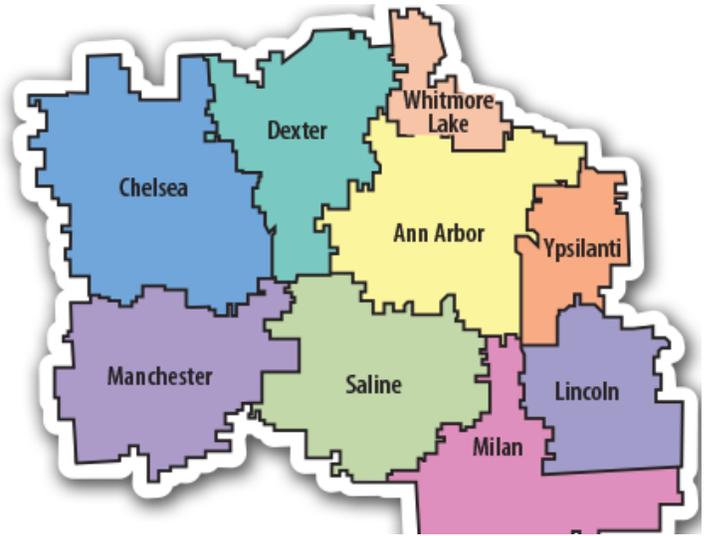


Figure 9: Washtenaw Intermediate School District
Map from: <http://washtenawisd.org/>

This new tax would lower how much schools have to pay on special education each year to \$2 million. It would free up \$22 million for general education programs. This new tax would cost owners of a home worth \$200,000 an extra \$12.50/month, or \$150/year.

You can find more information about the millage at <http://washtenawisd.org/>.

What's a Millage?

A **millage** is a tax rate in mills per dollar. Every property has a taxable value. It is about half of its retail value. A mill is \$1 for every \$1000 (1/1000) of the property's taxable value.

Are You Ready To Vote?

On May 3, people in Washtenaw County will vote on a tax proposal. The tax would help pay for special education.

You can vote if you are registered. Voters must be over 18 years old and a U.S. citizen.

Can't get to the polls on Election Day? You can vote by absentee ballot.

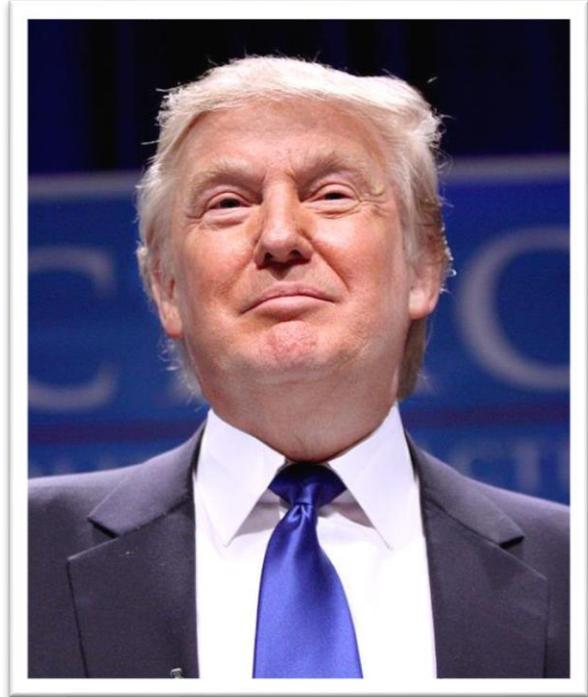
Get more information at www.michigan.gov/vote. Or call the Washtenaw County election office at 734-222-6730. **Be sure to vote on May 3, 2016!**

Michigan Presidential Primary Results



Bernie Sanders

Photo credit: U.S. Senator [Bernie Sanders](#) of Vermont, February 2007, the United States Congress



Donald Trump

Photo credit: [Donald Trump](#) speaking at CPAC in Washington D.C. on February 10, 2011 by Gage Skidmore

On March 8, the Democrats and Republicans in Michigan voted to pick their candidate for U.S. president. The winners of Michigan's primary election on March 8 were Donald Trump (Republican) and Bernie Sanders (Democrat).

In Michigan, Trump won 36.5% of the Republican vote and with it 25 delegates. Sanders won 49.8% of the Democratic vote and 67 delegates. The runners-up for the Republicans were Ted Cruz and John Kasich. They each got 17 delegates. The Democratic runner-up was Hillary Clinton. She got 60 delegates.

Republicans and Democrats in each state are voting to pick the candidates for U.S. president. The winners from each party will compete against each other in November. The winner in November will be the next U.S. president.

For more information on Michigan's primary results, visit:

<http://www.nytimes.com/elections/results/michigan>

Political Terms

Political parties are groups that share similar beliefs and values about government. The main political parties in the United States are Democrats and Republicans.

Delegates are people from each state who vote for candidates at their political party's national convention. This is where the nominees for president are picked. The candidate with the most delegates has the best chance of being the party nominee.

Presidential candidates are people who want to be elected president.

Nominees are picked from the candidates. There is one nominee for each party. They will be voted on in a general election for president. This election is in November 2016.

National Conventions are events where each political party picks its nominee for president.



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